

Abstract

A circuit and method of driving a display panel requiring gray scale control wherein the voltage applied to a row of pixels is equal to the sum of voltages of opposite sign with respect to ground applied respectively to the row electrode and column electrodes whose intersection with the row defines the pixels. Gray scale is realized through modulation of the voltage applied to the column electrodes. Typically for video application, 256 individual gray levels are required corresponding to luminance levels ranging from zero (no emissive luminance) to full luminance. The required luminance for each gray level is not a linear function of the gray level number but rather corresponds to an approximate quadratic function of this number. The present invention facilitates generation of luminance values for each gray level that approximates this functional dependence (i.e. Gamma corrected) with a non-linear voltage ramp terminated by a digital clock having 256 (8 bit) resolution. The voltage at the ramp termination is held at a constant value and fed to the output buffer of the gray scale drivers for the display columns.